

Running Buffalo Clover Background Information

Current Species Status: Running buffalo clover (*Trifolium stoloniferum*) occurs in 109 populations in three geographical regions: Appalachian (West Virginia and southeastern Ohio), Bluegrass (southwestern Ohio, central Kentucky and Indiana), and the Ozarks (Missouri). The majority of populations occur within the Appalachian and Bluegrass regions, with the largest population in West Virginia and the most populations in Kentucky. Running buffalo clover was listed as endangered in 1987.

Ohio Populations

Running buffalo clover was rediscovered in Ohio in 1988 when eight populations were found during intensive surveying. As of 2005, 18 extant populations were known from Ohio plus an additional eight extirpated populations. Populations have been found primarily in mesic forest and lawn habitats in Hamilton, Clermont, Brown, and Lawrence counties. An estimated 3,138 plants were documented in Ohio during 2005.

Ohio has been annually censusing rooted crowns and flowering stems since the late 1980s-early 1990s. Some demographic monitoring has also been conducted at a few populations to document the status of rooted crowns over time. Surveys for new populations were mainly conducted in the late 1980s, but these are still being conducted, resulting in several new populations in recent years.

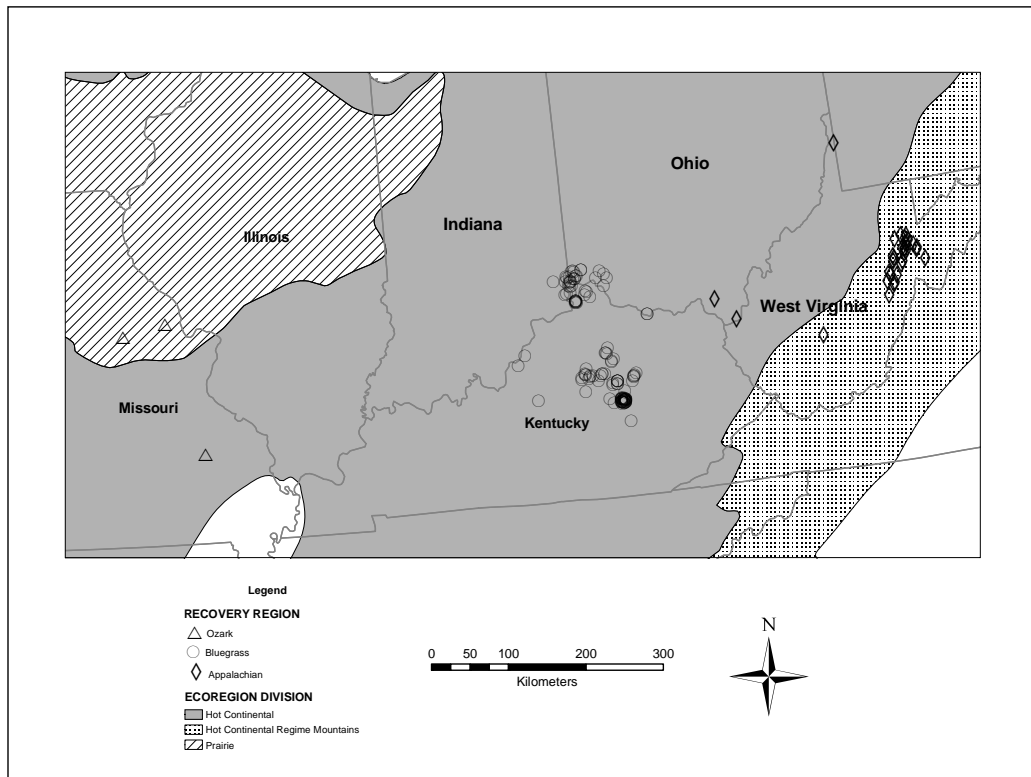
Most of the known populations are located on county park lands and have been managed to protect and encourage running buffalo clover. No formal protection agreement is in place for these populations. The two A-ranked occurrences now occur on Hamilton County Park District lands, Shawnee Lookout and Mitchell Memorial Parks. Two populations, both currently B-ranked, are formally protected in Ohio. Congress Green Cemetery, an Ohio Historical Society site, has a memorandum of understanding in place which provides for running buffalo clover protection, management, and monitoring. Warder-Perkins, a dedicated State Nature Preserve, is owned by the Audubon Society and managed by the Ohio Department of Natural Resources. Many of the plants at this site have been transplanted from a nearby privately-owned population (Niehaus), part of which is currently being developed for residences. The Niehaus population had been an A-ranked occurrence until 1999 when it declined dramatically, possibly due to shading and lack of disturbance. In 2005 only 75 plants were located at this site. The first population on federal land in Ohio was located in 2005 on the Wayne National Forest.

Habitat Requirements and Limiting Factors: Running buffalo clover occurs in mesic habitats with partial to filtered sunlight, where there is a prolonged pattern of moderate, periodic disturbance, such as mowing, trampling, or grazing. It is most often found in regions underlain with limestone or other calcareous bedrock, but not exclusively. It has been reported from a variety of habitats, including mesic woodlands, savannahs, floodplains, stream banks, sandbars (especially where old trails cross or parallel intermittent streams), grazed woodlots, mowed paths (e.g. in cemeteries, parks, and lawns), old logging roads, jeep trails, skidder trails, mowed wildlife openings within mature forest, and steep ravines.

The primary threat to running buffalo clover is habitat alteration. Factors that contribute to this threat include natural forest succession, and subsequent canopy closure, competition by invasive plant species, permanent habitat loss through development or road construction, and may include the elimination of bison and other large herbivores.

Species Description

Running buffalo clover usually acts as a perennial species, forming long stolons that root at the nodes. Plants produce erect flowering stems, 10-30 cm tall that send out long basal runners (stolons). The leaves of the runners have 1-2 cm long ovate-lanceolate stipules, whose tips gradually narrow to a distinctive point (attenuate tip). Erect stems arise from nodes along the stolon, with 2 large trifoliate leaves at their summit, their obovate leaflets 2-3 cm long and wide. Flowering stalks (peduncles) originate from the upper axils, producing 9-12 mm round (sub-globose) flower heads with the corolla white, tinged with purple and exceeding the calyx (Gleason and Cronquist 1991). In Ohio, running buffalo clover flowers in May.



For more information:

U.S. Fish and Wildlife Service. 2005. Running buffalo clover (*Trifolium stoloniferum*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 65 pp.
[available at <http://www.fws.gov/midwest/Endangered/plants/rbc-draft-rplan.pdf>]